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THE GENUS *PANOQUINA* OCCURRING IN TEXAS

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THE PURPOSE OF THIS PAPER is to clarify at least in part the occurrence and distribution of members of the genus *Panoquina* in Texas.

Panoquina hecebolus (Scud.) has been known for several years to occur in Texas. Specimens are in certain collections in the United States. However, these records do not appear to have been formally published. Evans (1955) lists no specimens from the United States. *P. hecebolus* is not listed in McDunnough (1938). Klots (1951) discusses *P. hecebolus* and figures it in halftone on Plate 39, figure 6. Dos Passos (1964) does not include *P. hecebolus* in his list. He states (*in litt.*) that he knows of no authentic published records from the United States. Kendall and Freeman (1963) list *hecebolus* in a tentative list which is a forerunner of a forthcoming definitive Texas list.

Three species of *Panoquina*, namely *hecebolus* (Scud.), *ocola* (Edw.) and *sylvicola* (H.-S.), seem to have been confused with one another in our fauna. These species are not difficult to separate if one has at hand specimens of all three. All occur in southern Texas and may be taken on the same day or even flying together, along the Rio Grande at such localities as the Santa Ana Wildlife Refuge in Hidalgo County.

P. sylvicola has the outer margin of the primaries indented, so that the forewing is very narrow and pointed. There is a long cell spot on the upper surface of the forewing. The under surface of the hind wing bears a nearly straight line of small separate pale bluish white spots, usually six in number. In nature *sylvicola* sits with wings folded very far back, and looks very long and narrow at rest. The macular band is conspicuous. The entire insect has a submetallic sheen lacking in *P. ocola* and *P. hecebolus*.

Both *P. ocola* and *hecebolus* have the forewing less pointed and in nature appear less long and narrow when perched. Both appear dark brown or blackish with little or no sheen. *P. hecebolus* has a small but distinct cell spot in the forewing. This spot is lacking in *ocola*. *Hecebolus* is usually somewhat darker, especially on the under side of the hind wing.

Five species of *Panoquina* occur in Texas. The sixth species recorded from the United States, *panoquin* (Scud.), is so far not known to occur there.

The following records are from the collections of Roy Kendall, San Antonio, Texas, H. A. Freeman, Garland Texas, and the author.

Panoquina panoquinoides (Skin.)

CAMERON COUNTY—Texas Hwy. 4, 4 miles west of Boca Chica, 19.X.63, 9 ♂♂, leg. Kendall and Tilden, new county record; 20.X.63, series, leg. Tilden; 26.X.63, common, leg. Tilden 29.X.63, 1 ♂, leg. Tilden; 12.XI.63, 1 ♀, leg. Tilden; Port Isabel, 24.X.63, 1 ♂, 2 ♀, worn, leg. Tilden, Nueces County—Mustang Island, at Old Cemetery, 21.X.62, 13 ♂♂, 4 ♀♀, leg. Kendall (new county record); 24.XI.62, 30 ♂♂, 1 ♀ and 6:VII.63, 5 ♂♂, all leg. Kendall; 15.X.63, 5 ♂♂, 1 ♀, leg. Tilden. SAN PATRICIO COUNTY—Welder Wildlife Refuge, 3.XI.63, 1 ♂, leg. Tilden (new record for the refuge and for the county).

Panoquina ocola (Edw.)

BEXAR COUNTY—San Antonio, 7.VIII.57, 1; 8.IX.57, 2; 10.IX.57, 1; 14.IX.57, 2; 15.IX.57, 1; all leg. Kendall, in his own yard. Curiously absent since. He suggests city expansion. HIDALGO COUNTY—Pharr, 7.X.44, 1 ♀; 22.X.44, 1 ♂; 10.X.45, 1 ♂; 3.X.46, 1 ♀; 9.X.46, 1 ♀; 12.X.46, 1 ♂; 3.XI.46, 1 ♀, all leg. Freeman; Santa Ana Wildlife Refuge, 11.XI.63, 1 ♂, leg. Tilden. SAN PATRICIO COUNTY—Sinton, 24.XI.61, 2, leg. Kendall; Welder Wildlife Refuge, 25.XI.61, 4, leg. Kendall; 3.XI.62, 1 ♂, leg. Tilden.

Panoquina hecebolus (Scud.)

CAMERON COUNTY—Palm Grove, 12.XI.63, 3 ♂♂, 1 ♀, leg. Tilden; Villa Nueva, 25.X.63, 1 ♂, leg. Tilden. HIDALGO COUNTY—Hidalgo, 2 miles north, 31.X.63, 1 ♂, 1 ♀, leg. Tilden; Pharr, 15.X.44, 1 ♀; 16.X.44, 1 ♀; 11.XI.44, 1 ♀; 12.XI.44, 1 ♂; 11.XI.45, 2 ♂♂; 1.X.46, 1 ♂; 9.XI.46, 1 ♂; 14.XI.46, 5 ♂♂, 3 ♀♀, all leg. Freeman; Santa Ana Wildlife Refuge, 31.X.63, 1 ♂; 11.XI.63, common, series taken, all leg. Tilden.

Panoquina sylvicola (H.-S.)

HIDALGO COUNTY—Pharr, 16.IX.44, 1 ♂; 23.IX.44, 1 ♂; 14.X.44, 1 ♂; 15.X.44, 1 ♂; 21.X.45, 8 ♂♂, 3 ♀♀; 12.X.46, 1 ♀, all leg. Freeman. Santa Ana Wildlife Refuge, 11 ♂♂, 2 ♀♀; leg. Tilden.

Panoquina fusina evansi (Freeman)

CAMERON COUNTY—Brownsville, 13.XI.63, 1 ♂, leg. Tilden (new county record).

As far as can be found, this is the first specimen of this species to be taken in Texas since Freeman captured the types at Pharr, Hidalgo County, in 1944. Although Evans (1955) lists *evansi* Freeman as a subspecies of *fusina* Hewitson and is followed in this by dos Passos (1964), Freeman considers *evansi* a distinct species rather than a subspecies of *fusina* (personal communication).

It will be seen that *Panoquina* spp. in Texas are concentrated in the southeastern part of the state. *P. panoquinoides* is restricted to the coastal plains, often in open grasslands and the edges of salt marshes. The other species tend to occur in the more lush areas such as river bottoms, groves and the edges of resacas. *P. evansi* (Freeman) is very much larger than the other species and is very scarce. Apparently only three specimens are known from Texas. The remaining three species — *ocola*, *hecebolus* and *sylvicola* — are most likely to be encountered in the lower Rio Grande Valley, where all may occur together. All five species are strongly attracted to flowers.

**KEY TO THE SPECIES AND SUBSPECIES OF PANOQUINA
OCCURRING IN THE UNITED STATES**

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|---------|--|-----------------|
| 1a. | Size large, forewing more than 22 mm; spots of upper surface yellowish; under surface of hindwing with lavender iridescence, and with a broad iridescent bluish-white band | <i>evansi</i> |
| 1b. | Size smaller, forewing 18 mm or less; spotting of upper surface hyaline, white or ivory; iridescence reduced or absent; macular band of under surface of hindwing much reduced, of small separate spots, or absent | 2 |
| 2a(1b). | Forewing 12-15 mm; veins of under surface lighter than background; macular band when well-developed, not straight | 3 |
| 2b. | Forewing 17 mm or more; under surface with veins concolorous with ground color, or nearly so; macular band if present, straight | 5 |
| 3a(2a). | Under surface of hind wings with two (at times only one) pale dashes parallel to the veins; Florida to New Jersey; not known to occur in Texas | <i>panoquin</i> |
| 3b. | Under surface or hind wings with a curved median band of small light spots | 4 |

- 4a(3b). Median band of lower surface of secondaries broken in the middle; spots of upper surface yellowish, often much reduced; size smaller, forewing 12-14 mm; Florida and Texas*panoquinoides*
- 4b. Median band of hind wing complete; spots of upper surface ivory to white, well-developed ;size larger, forewing 13-16 mm; confined to California and Baja California*panoquinoides errans*
- 5a(2b). Forewing cell with pale spot 6
- 5b. Forewing cell without pale spot*ocola*
- 6a(5a). Vestiture of thorax and sometimes of under wing surface, slightly iridescent; under surface of secondaries with a straight band of 5-6 small powdery bluish-white spots.....*sylvicola*
- 6b. Vestiture of thorax not iridescent; under surface of secondaries immaculate or nearly so, the band either obsolete of at most very faintly indicated, and then not bluish-white nor the spots separated*hecebolus*

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